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DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

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ANIMAL WELFARE ACT

Proposed Standards and Regulations for the Humane Handling, Care, Treatment, and Transportation of Marine Mammals

[3410-34]

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

[9 CFR Parts 1 and 3]

ANIMAL WELFARE ACT

Proposed Standards and Regulations for the Humane Handling, Care, Treatment, and Transportation of Marine Mammals

AGENCY: Animal and Plant Health Inspection Service (USDA).

ACTION: Proposed rule.

SUMMARY: This document proposes regulations and standards under the Animal Welfare Act which would remove warmblooded aquatic animals or marine mammals from the list of species of warmblooded animals exempted by regulation and would bring them under the jurisdiction and protection of the Animal Welfare Act. The Marine Mammal Commission has recommended that the Secretary of Agriculture adopt certain standards under the Animal Welfare Act to govern the humane handling, care, treatment, and transportation of marine mammals. Regulations and standards were first proposed and published in the FEDERAL REGISTER on August 19, 1977. Comments and recommendations were received from the public and the Marine Mammal Commission. This Department has evaluated the comments and recommendations and has decided to modify the proposal of August 19, 1977, and to republish it as a proposed amendment to the regulations and standards under the Animal Welfare Act to govern the humane handling, care, treatment, and transportation of marine mammals.

DATE: Comments on or before November 20, 1978.

ADDRESSES: Comments to Deputy Administrator, USDA, APHIS, VS, Room 703, Federal Building, 6505 Belcrest Road, Hyattsville, Md. 20782. Comments are available for inspection at the above address during regular hours of business (8 a.m. to 4:30 p.m. Monday through Friday, except holidays) in a manner convenient to the public business (7 CFR 1.27(b)).

FOR FURTHER INFORMATION CONTACT:

Dr. Dale F. Schwindaman, Senior Staff Veterinarian, Animal Care Staff, Veterinary Services, Animal and Plant Health Inspection Service, United States Department of Agriculture, Room 703, Federal Building, 6505 Belcrest Road, Hyattsville, Md. 20782, telephone number 301-436-8271.

SUPPLEMENTARY INFORMATION: On August 19, 1977, the Animal and Plant Health Inspection Service (APHIS) published a proposed rulemaking under the Animal Welfare Act (42 FR 42044) which proposed standards and regulations for the humane handling, care, treatment, and transportation of marine mammals when maintained in captivity. This proposed rulemaking would amend Parts 1 and 3, Subchapter A, Chapter I, of the Code of Federal Regulations. The Animal Welfare Act, as amended (7 U.S.C. 2131 et seq.), requires the Secretary to promulgate regulations and to set standards governing the humane handling, care, treatment, and transportation of animals by dealers, research facilities, exhibitors, and operators of auction sales. Such standards must include such specific areas as (1) handling, (2) housing, (3) feeding, (4) watering, (5) sanitation, (6) ventilation, (7) transportation, (8) shelter from extremes of temperature, (9) adequate veterinary care, and (10) separation of species, to provide the animals with the minimum essentials to maintain them in a state of good health.

Following publication of the proposed rulemaking on August 19, 1977 (42 FR 42044), a 60-day period was designated for the purpose of inviting public comment. During the comment period, three informal public hearings were held at different locations within the United States to provide the public the opportunity to voice its opinion regarding the proposed rulemaking. A notice regarding two of these meetings was announced in the FEDERAL REGISTER on September 13, 1977 (42 FR 45934). The first meeting was held on September 26, 1977, in Los Angeles, Calif., and the second in Miami Springs, Fla. on September 29, 1977. A third meeting was announced in the FEDERAL REGISTER on October 4, 1977 (42 FR 53968). It was held in College Park, Md., on October 18, 1977. The proceedings of all three meetings were recorded, and all the discussions and comments are a matter of public record. Written comments were also received during the comment period and are on file and available to the public.

At the end of the comment period there were 49 letters and written statements received with regard to the proposed rulemaking. In summary, the comments from the private sector of the public, including individuals who apparently do not have any direct interest in marine mammals consist of the following: One was opposed to APHIS' proposals as being much too lenient; there were 14 which generally agreed with the proposals and suggested that a few areas be strengthened, and there was one which agreed but indicated that extensive changes should be made. Comments from the various animal welfare groups consisted of one which was opposed to all the proposed standards as being too mild, and four which agreed with the standards as written. Most comments came from the industry such as zoos, circuses, universities, research facilities, and others who will be primarily affected by the new requirements. None of these agreed with the proposal as written. There were two which opposed any form of regulation over marine mammals. Fourteen agreed with the basic concept of the proposal but strongly urged modifications. The Marine Mammal Commission supported the basic concept of the proposal but noted that the provisions of the proposed regulations were not consistent with those it had recommended to the Department in 1975. It recommended that the Department modify the provisions to make them consistent with its recommendations. In order to more fully discuss such recommendations, the representatives of the Commission requested a meeting with the Department prior to publication of this proposal. Such a meeting was held on July 20 and 21, 1978, in Departmental offices of USDA.

The various comments that were received with regard to the proposed rulemaking and the recommendations of the Marine Mammal Commission were evaluated by this Department, and it was determined that several areas needed extensive revision. Therefore, the Department has decided to redraft the original proposal and to republish the regulations and standards as a proposed rulemaking.

Notice is hereby given in accordance with the administrative provisions in 5 U.S.C. 553, that, pursuant to the provisions of the Animal Welfare Act (7 U.S.C. 2131 et seq.), the Department of Agriculture is proposing (1) to amend the regulations under the Act (9 CFR 1.1) to revise the definition of "animal" to include marine mammals, to add the term "pool" to the definition of "primary enclosure", and to define the term "minimum horizontal dimension"; and (2) to provide new standards (9 CFR 3.1 et seq.) regarding the humane handling, care, treatment, and transportation of marine mammals.

These proposed standards and regulations would apply for the humane handling, care, and treatment of all marine mammals maintained in captivity. All facilities which house marine mammals in captivity would be required to comply with the proposed standards and regulations unless they are granted written permission by the Secretary to maintain a facility which does not meet every requirement of the standards and regulations. Such

permission would only be granted upon written application and upon the submission of all the information requested by the Secretary regarding the facility seeking such permission.

It is proposed herein that facilities housing marine mammals be allowed to obtain such permission to operate under license even though they may not be in full compliance with the standards for two reasons. The first of these is that there may be existing facilities containing healthy and well kept marine mammals, which do not meet the proposed requirements in every respect. The area of marine mammal care is relatively new to the Department and some of the requirements of the standards may go substantially beyond the requirements of the Animal Welfare Act, i.e., minimum standards for the humane handling, care, and treatment of marine mammals. It would therefore be unfair for the Department to demand that such facilities immediately comply with every standard or face administrative or criminal action for failure to do so. During the time period in which deviation from the requirements would be allowed (a maximum period is 4 years from the effective date of the regulations and standards), the Department would have an opportunity to further research the various aspects of marine mammal care, and to amend the requirements when deemed appropriate. The second reason for proposing to allow permission for deviation from the standards is a purely economic and practical one. If a facility needs to make extensive structural changes to come into full compliance, it may need enough time to be able to accomplish this task since renovation or new construction could entail a great amount of money as well as time. An exemption to deviate from the standards would also be granted by the Secretary in cases where a facility wishes to experiment in the area of maintaining marine mammals in captivity.

A request for permission to operate a facility that deviates from the proposed standards, or a facility which requests a temporary exemption to experiment with basic husbandry practices of maintaining marine mammals in captivity, would not be considered a right. The Secretary could deny such requests if he determines that granting them would be harmful or detrimental to the good health and well-being of the marine mammal involved.

The standards and regulations would become effective 90 days after publication as a final rulemaking in the FEDERAL REGISTER. It is proposed herein that within that 90-day period all facilities housing marine mammals be required to apply to the Deputy Administrator of APHIS to have their marine mammal facilities inspected by Department inspectors. A facility already licensed by the Department as an exhibitor or as a research facility having marine mammal housing areas which are in compliance with the Act would need no further license. Facilities not licensed by the Department would be issued a license provided they were in compliance with all the standards and regulations.

Any facility not totally in compliance at the time of the inspection would have the opportunity to obtain permission from the Secretary to operate as a licensee under the Act. Such permission would be in writing and all existing deficiencies would be listed thereon. A timetable would be required to be submitted to the Secretary, by the applicant, for correction of such deficiencies: *Provided, however,* That any facility having such serious deficiencies that the good health and well-being of the marine mammals contained therein are in jeopardy, would be required to immediately correct such deficiencies. A maximum of 4 years from the effective date of these standards and regulations would be granted for extensive new or renovative construction to bring the facility into total compliance with the Act. A determination would have to be made by representatives of the Secretary at the time of the first inspection, as to the priorities of correcting the deficiencies.

On evaluating the comments received, there appears to be some confusion under what authority this Department is proposing these regulations and standards. There is also some question regarding the duplication of authority of other Government departments or agencies in regulating marine mammals. The authority to promulgate the regulations and to set standards for the humane handling, care, treatment, and transportation of captive marine mammals by dealers, research facilities, exhibitors, and operators of auction sales was given to the Secretary of Agriculture by the 1970 Amendments to the Animal Welfare Act (Pub. L. 91-579). Such authority was extended to cover carriers and intermediate handlers by the Animal Welfare Act Amendments of 1976 (Pub. L. 94-279). The Secretary temporarily exempted warmblooded aquatic animals or marine mammals by regulation and is now prepared to remove them from exemption.

Under provisions of the Marine Mammal Protection Act of 1972) Pub. L. 92-522), the administrative responsibility for regulating marine mammals in the wild, and those removed from the wild and held in captivity after the effective date of the Act, was given by Congress to the Departments of Commerce and the Interior. Those Departments have prescribed the regulations that apply to such animals. Such authority is exercised through a permit system whereby permits to obtain new marine mammals or replacements from the wild are issued, provided that the applicants for such permits comply with provisions of these permits with respect to the handling and care of the animals. The authority of the Department of Agriculture extends to marine mammals held in captivity regardless of when they were taken. There appears to be some overlap and duplication of effort between the two Acts, but in fact, they dovetail very nicely and each agency has its own area of responsibility. The Departments of Commerce and the Interior have indicated their interest to enter into an agreement with USDA for purposes of regulating the maintenance in captivity of marine mammals that would otherwise be subject to their jurisdiction and regulations when these proposed regulations and standards become effective.

The Marine Mammal Commission, created by the Marine Mammal Protection Act of 1972, was given the responsibility of studying and recommending to the Secretaries of Commerce and the Interior, and to other Federal officials, such steps as it deems necessary or desirable for the protection and conservation of marine mammals. It has recommended that the Secretary of Agriculture remove marine mammals from the list of species exempted by regulation from coverage under the Animal Welfare Act and adopt certain standards and regulations for their humane handling, care, treatment, and transportation. Such recommendation and supporting technical data have been used as the basis for proposing these proposed amendments to the regulations and standards under the Animal Welfare Act. Prior to obtaining this data and other information regarding marine mammals, this Department did not have sufficient information on which it could base such regulations and standards.

In developing the proposed standards, this Department relied on information and recommendations from many sources, including the Marine Mammal Commission, and also added numerous paragraphs so that the proposed standards would conform to the present standards which apply to all other warmblooded species covered by the Animal Welfare Act. This is especially true with respect to the transportation standards which are required by the 1976 Amendments to the Animal Welfare Act and which would apply to common carriers and intermediate handlers.

The proposed regulations and standards apply to several orders and many species of marine mammals which

have significant differences with respect to their biological and behavioral requirements. In all cases, the goal of the proposed regulations and standards is to provide each individual marine mammal with at least minimum acceptable conditions consistent with its good health and well-being, in reference to its physical requirements and behavioral characteristics. It should be understood, however, that the Department is still developing new information regarding the proper procedure for maintaining marine mammals in captivity and that the standards and regulations proposed herein may, in some instances, be more or less than the minimum required. As new information regarding marine mammals is acquired, the Department expects to amend the standards and regulations accordingly.

Standards relating to the humane handling, care, treatment, and transportation of animals currently covered by the Animal Welfare Act are contained in 9 CFR part 3, subparts A, B, C, D, and E. The individual subparts are oriented to similar kinds or classes of animals and have many sections which are equally applicable to the humane handling, care, and treatment of all animals. It is proposed that subpart E of the standards be redesignated as subpart F and be renumbered accordingly, and that a new subpart E be added to the standards containing the minimum standards for marine mammals.

Discussion of Comments

Comments regarding facilities, health, and husbandry

There were several comments received stating that the proposed requirement, "that the surfaces within the primary enclosure pool and the area immediately surrounding the pool should provide a nonporous, waterproof finish, free of cracks or imperfect junctures," was impossible. The Department does not intend to say that cracks and imperfect junctures would not occur, but if cracks appeared or if there were settling or upheavals, then these would be required to be repaired as part of a regular ongoing maintenance program. Furthermore, it would be expected that an effort would be made to avoid or minimize such imperfections during construction. Broken cement is unsightly and indicates neglect, as well as being a health hazard to the animals, as it is difficult if not impossible to clean properly.

With regard to primary enclosures in general, the Marine Mammal Commission pointed out that in the original proposal there were no provisions for facilities commonly found in coastal areas which house marine mammals in tidal basins, bays, and estuaries. This type of primary enclosure would usually consist of a natural inlet which is fenced to house marine mammals. The water in such an enclosure is circulated naturally by tidal action or currents.

It is the determination of this Department that this type of primary enclosure would be required to meet or exceed the proposed standards and regulations with regard to the minimum space requirements of both the pool and resting areas, depth of the water (at the lowest tide), and the applicable sanitation regulations. Very little construction is actually done in a natural primary enclosure pool other than the fence. Therefore, it is proposed herein that such pools be exempt from the surface, construction, and drainage requirements proposed herein. However, the support facilities surrounding the primary enclosure would be required to meet or exceed all the proposed standards and regulations, and the fence and the enclosure itself would be required to meet the standards with respect to protection of the marine mammals from injury.

Facilities constructed near a source of natural water, and using the water for pool water in the primary enclosure, would be required to meet or exceed all parts of the proposed standards and regulations. Water quality would be required to be monitored and the discharge of the drainage effluent would be required to meet local, State, and Federal requirements for waste disposal.

Modern day pollution of natural waterways is a real problem, and facilities utilizing natural water would have to continually monitor the water quality to assure the water used in the primary enclosure pool is not harmful or detrimental to the good health and well-being of the marine mammals housed therein.

It is proposed that the area immediately surrounding the pool, especially in primary enclosures for pinnipeds, can be any surface such as rocks, sand, dirt, etc., as long as it can be properly cleaned.

One comment stated that the proposal would require a sterile exhibit and that no provisions for any "decorations" or "furniture" were made. This was not the intent of the regulations. Rocks, logs, or any other objects would be allowed to be placed in the enclosure for decoration or for the comfort or entertainment of the marine mammals, as long as such objects could be cleaned on a daily basis along with the rest of the interior of the enclosure. These objects would not be allowed to occupy space in the enclosure which is necessary to meet the minimum resting and social activity requirements of the animals.

Another comment regarding the original proposal consisted of a request for the deletion of part of a sentence, i.e., "to restrict the entrance of other animals" (§ 3.100(a)(1)), when describing the general construction requirements for primary enclosures, because in natural enclosures that are located in tidal basins or near bays and estuaries, small fish swim in and out of the enclosures. The Department does not intend to restrict the desirable or unobjectionable animals, such as small fish, gulls, or other birds, from entering the enclosure but intends to prevent the entrance of unwanted animals. This clarification is therefore reflected in this proposal.

There were several comments that the first proposal did not allow for public feeding or for petting pools whereby the public is allowed to actually touch the captive marine mammals. The proposed regulations did not prohibit public feeding or petting pools but stated that in the event there were no effective physical barriers to keep the public from injuring the animals or the animals from injuring the public, then close or constant supervision must be maintained at all times when there would be marine mammal/public contact. This means an employee or attendant would need to be physically present to exercise such supervision at the exhibit during the contact period.

There were numerous comments that emergency backup equipment at facilities would be expensive and unnecessary to provide for the animals in case of failure of the primary source. It was not intended that both power and water sources be present at all times on the premises. The regulation as proposed would allow for portable powerplants to be brought in for emergency use. Water could be hauled in, or any method could be used to bring in water for swimming, drinking, or cleaning purposes as long as the animals were not caused to suffer because of the failure. Although the power and water failure would not present an immediate problem to the animals, it would be very difficult to maintain water quality and provide for proper cleaning if the failure lasted for an extended period. Therefore, it is proposed herein that written contingency plans be provided to the Department for approval concerning supplying power and water in the event of an emergency failure of the primary sources. The plan must be capable of being implemented before the health and well-being of the marine mammal is jeopardized.

With regard to drainage, the former proposal stated that not only must proper drainage be present at the primary enclosure pool but also at the resting and social activity areas imme-

diately around the pool in order to allow for complete drainage which would facilitate thorough cleaning. Furthermore, that proposal stated that the area immediately around the pool be sloped or graded toward drains to prevent soiled or contaminated water from reentering the pool. It was also proposed that all water, whether splashed from the pool, rainwater, or water used for cleaning purposes, should drain away from the pool and be disposed of in a manner that complies with all applicable State, Federal, and local antipollution laws.

Several comments were received regarding these proposed requirement, some stating that there are many well-operated facilities in which all drainage slopes toward the pool, this being especially true in closed systems that continually recirculate saltwater. Most localities prohibit the discharge of saltwater into public drainage systems as a violation of the antipollution laws. Therefore, all saltwater must be recovered for recirculation. Facilities with this type of drainage must have extremely efficient filtration systems with fast turnover or recirculation rates in order to maintain proper water quality standards. After giving these factors due consideration, the Department proposes to relax the proposed drainage requirements to allow the drainage to reenter the pool provided that proper water quality can be maintained.

There were several comments received with regard to the proposed requirements for indoor housing of marine mammals. Most of the comments concerned the ambient air and water temperatures in such housing. Eleven of the comments were of the opinion that the proposed temperature ranges were unnecessary. After due consideration of the comments received, the Department has determined not to impose the temperature ranges, as previously proposed. The reason for this decision is due to the number of adverse comments received stating that certain species of marine mammals cannot tolerate the upper proposed temperature range and other species cannot tolerate the lower proposed temperature range, and that even experts in the field do not agree that an optimum temperature can be found for all marine mammals.

Since the maximum and minimum acceptable temperatures for every known species of marine mammal have not been documented by scientific research, they are not available to the Department whereby they can be incorporated into the standards and regulation for each species. Nevertheless, this Department realizes that maintaining appropriate ambient air and water temperatures is vital to the good health and well-being of marine mammals. Therefore, although no specific temperature range is required by this proposal, it is proposed herein that the air and water temperatures in indoor facilities shall be sufficiently regulated by heating or cooling to protect the marine mammals from extremes of temperature, to provide for their good health and well-being and to prevent their discomfort, in accordance with currently accepted practices as cited in appropriate professional journals or reference guides depending entirely upon the species housed therein.

Marine mammals are air breathing animals and proper ventilation is very important to assure that they are provided an adequate quantity of air of good quality.

There were two comments that the proposed air space of 2.44 meters (8 feet) over the pools of water was excessive and that there could be less air space, provided that the flow of air in such space was increased. The technical and scientific advisers to the Department agree that the average minimum height requirement over the pool could be lowered to 1.83 meters (6 feet) if the air movement is such that it satisfies all minimum standards for ventilation. It is therefore proposed herein that the space over pools be not less than an average of 1.83 meters (6 feet) from the level of the water in the pool to the ceiling and that ventilation of indoor housing facilities be adequate to provide a flow of fresh air for the marine mammals.

The proposed standards regarding lighting in indoor facilities remain unchanged in this proposal. It is proposed herein that indoor facilities for marine mammals must have sufficient light provided by natural or artificial means so that animal caretakers can observe the marine mammals both in and out of the primary enclosure pool of water to detemine their general health and condition and so that they can observe and maintian good sanitary conditions. Lighting must also be sufficient in distribution and intensity for adequate inspection purposes. It also appears that lighting in indoor facilities is necessary to simulate the approximate lighting conditions existing in nature, allowing for certain periods of darkness and daylight.

The major comments concerning outdoor facilities were with regard to the amonut of ice in pools, shade from excessive sunlight, and shelter from inclement weather. Ten comments were received with regard to allowing ice in the pool for some species of marine mammals and not for others, twelve comments stated that there is no need to provide shade, and three comments stated that there is no need to provide shelter from inclement weather.

As was stated in the previous proposal, marine mammals come from a great variety of climatic conditions, from equatorial waters to the polar ice caps. There is also a great range of climatic conditions within the United States. Outdoor facilities are completely dependent upon local environmental conditions. Marine mammals have adapted to the most hostile environments in the world, and their natural habitats are very stark with little, if any, protection from adverse weather conditions. If their environment becomes too undesirable, the marine mammal can escape to the sea or migrate to more suitable environmental living conditions. Captive marine mammals have no such natural escape route available to them. Therefore, artificial protection must be provided for use by the marine mammal in captivity when the need to do so arises. The protection is especially important in the case of marine mammals which, because of their age, illness, or any other debilitating condition, cannot adequately regulate their body temperature. For these reasons, the Department intends to continue to require that some sort of shelter be provided when necessary to protect the animals from either the sun or from inclement weather. Outdoor facilities would be required to be designed in a manner which would allow marine mammals contained therein to adapt to the variations of climatic conditions which exist in the geographical area where they are kept. If the local climatic conditions of the outdoor facility vary form the conditions in which they were previously housed, the marine mammals will have to be acclimated to their new environment before being placed in such outdoor housing facilities.

Originally, it was proposed that water in pools in primary enclosures be kept free of ice. Pools in outdoor facilities which are covered with ice can deny marine mammals access for exercise, drinking, body temperature regulation, or can obstruct their free access to the surface to obtain sufficient air for normal breathing. However, after considering various factors and after consulting with the Marine Mammal Commission, this Department has decided to modify the original proposal. It is therefore proposed that pools of water in outdoor facilities for cetaceans and sea otters be kept free of ice. It is further proposed that outdoor pools in polar bear and ice dwelling pinniped enclosures shall be kept sufficiently free of solid ice so as to not interfere with free access to the pool by the animals by preventing their entry or exit from the pool. It is also proposed that sirenians and warm water dwelling pinnipeds shall not be house in pools where water tempera-

ture cannot be maintained within the temperature range to meet their needs.

The Marine Mammal Commission has recommended that no marine mammal should be maintained alone. The Commission makes this recommendation because most marine mammals are gregarious and do not easily adapt to isolation. It may be desirable to keep several individuals of a species for more normal socialization, breeding, and for establishing normal species specific behavioral patterns. But it is the opinion of the Department that the imposition of such a requirement would be unnecessarily restrictive. This Department has no authority over the permit system of obtaining new or replacement marine mammals. The Department cannot prosecute a licensee for having a single marine mammal if other government agencies do not issue permits to obtain additional marine mammals. However, in order to encourage keeping more than one marine mammal in an enclosure, the Department has made the proposed minimum space requirements for marine mammals, with the exception of pinnipeds and polar bears, sufficiently large to hold at least two animals.

Many comments were received with regard to the proposed space requirements. Some of the general comments were that marine mammal space requirements should not be lumped together but should be determined for each individual species. Some suggested that the Department should also consider the purpose of the housing, such as training, research, isolation, performing arenas,and other functions when setting space requirements. Others felt there should be considerable space for exercise. All the comments were considered, and it is the opinion of the Department that most were valid. The problem is presented of proposing minimum space requirements under which marine mammals can be housed, while taking into consideration their good health and well-being. Many experts and humane organizations feel that more than the minimum should be provided, but the Animal Welfare Act speaks in terms on minimum requirements. Therefore, only the essential factors must be considered to assure that handling, care, treatment, and means of transportation are adequate to maintain the marine mammal in a state of good health.

Space requirements for the wide range of marine mammals are quite variable. The Marine Mammal Commission, in its advisory capacity to all agencies of the Federal Government with regard to marine mammals, has furnished this Department with its recommendations from information that has been collected by its scientific advisory committee and which has been used as a basis for the proposed space requirements for marine mammals. Such information appears to provide an adequate basis for setting space requirements which would be sufficient to assure the good health and well-being of captive marine mammals.

Regarding the comments advising different space requirements for different species, it should be noted that there are more than 100 species of marine mammals, and valid scientific data regarding the minimum requirements is not available regarding every species. Therefore, the Department has no choice other than "lumping" species of marine mammals together. However, consideration was given to the different orders of marine mammals.

The Marine Mammal Commission has specifically recommended that the order Cetacea (whales, dolphins, porpoises) be divided into two groups. This recommendation is, therefore, being adopted in this proposal. The Marine Mammal Commission's justification for such division is based upon the activity patterns of certain species of cetaceans, requiring more space for the more active species. Most cetaceans are grouped in a category designated as group I. Certain othe genera and species listed in § 3.104(b) of the standards proposed herein have been designated as Group II.

The four factors which must be considered when determining minimum space requirements for cetaceans are as follows: The minimum horizontal dimension (MHD), the depth, the surface area of the pool, and the volume of the pool.

MHD has been designated to mean the diameter of a circular pool, or in the case of a square, rectangular, oblong or other shape pool, the diameter of the largest circle that can be inserted within the confines of such pool. The MHD for each marine mammal is calculated to give it adequate freedom of movement in the pool horizontally. It is proposed herein that the MHD for a pool housing marine mammals cannot be less than the MHD required for the longest species of marine mammal contained therein.

It is also proposed that the primary enclosure for cetaceans (e.g., whales, porpoises, and dolphins) need consist of only a pool of water. The reason for this is that cetaceans spend all of their time in water. It is proposed that all group I cetaceans must be provided a pool of water with an MHD which is at least two times the average adult length of the longest cetacean to be contained therein, as measured from the tip of its lower jaw to the notch in the tail fluke. In the case of a narwhale, if a tusk is present or will potentially develop, the measurement shall be based on the average adult length from the tip of the tusk to the notch in the tail fluke. It is also proposed that group II cetaceans must be provided a pool with an MHD of four times the average adult length of the longest group II cetacean to be housed therein. If both group I and group II cetaceans are to be housed in the same enclosure pool, the MHD requirement must be determined for both groups and the MHD must be equal to or greater than the larger of the two.

The minimum depth of a primary enclosure pool for cetaceans would be required to be at least one-half the average adult length of the longest species of cetacean housed therein regardless of group I or II status, as measured from the tip of its lower jaw to the notch of its tail fluke. Computing proper depth, using this criteria, would allow the cetacean to be completely covered with water and still allow for vertical freedom of movement. It is therefore proposed that the minimum depth of a pool housing cetaceans shall not be less than 1.52 meters (5 feet) or one-half the average adult length of the longest species of cetacean housed therein, whichever is greater. Regardless of the total number of cetaceans to be housed in the pool, the minimum depth shall not be allowed to be less than the minimum determined for the average adult length of the longest species of cetacean housed therein. A pool of such depth which meets the required MHD and surface area would be considered to contain a sufficient volume of water for one or two group I cetaceans of one to four group II cetaceans.

The volume requirement for a pool of water containing two group I cetaceans or for four group II cetaceans would be calculated using the MHD and depth requirements described above. It is proposed herein that one-half the required MHD squared, times 0 (3.14), times the required depth would result in the volume required by the standards. Dividing this volume by two would result in the volume necessary for each group I cetacean, and dividing it by four would result in the volume necessary for each group II cetacean. The volume which would be required to be added to a pool containing additional cetaceans (more than two group I cetaceans or more than four group II cetaceans) may be obtained by expanding the lateral dimensions, by deepening the pool, or by a combination of the two.

One comment received was that the proposed regulations made no provisions for surface area requirements available to the cetaceans for breathing space. There was some concern

that, as more cetaceans are added to the pool, volume requirements could be met by only deepening the pool; eventually there would not be enough surface area for all the cetaceans to be on the surface at the same time to be able to breathe. This proposal obviates that problem by requiring that a pool containing cetaceans must also have a minimum surface area. This would be determined by dividing the average adult length of each cetacean in the pool by two and squaring this amount, then by multiplying the answer by 0 (3.14) times 1.5, which is the safety factor discussed below. The sum of the results of this computation for all cetaceans to be housed in a pool would represent the required surface area of the pool. It is not likely all cetaceans would be on the surface at the same time, but if that should occur they would all have room for breathing. A safety factor is also considered advisable to allow a little more than the cetaceans' own area. Therefore, it is proposed herein that a factor of 1.5 be arbitrarily used, since this would give each cetacean its own area plus 50 percent.

There were several comments received regarding space requirements for sirenians. Some stated the MHD need not be more than 1½ times the body length. Others commented that the 1.52 meters (5 feet) minimum was too deep for newborn sirenians. Others said that 1.52 meters (5 feet) was not deep enough as sirenians breed in a vertical position and feed in a diagonal position. After giving due consideration to all the comments, it has been decided to propose that the space requirements for sirenians be computed in the same manner as the space requirements for group I cetaceans, in that the MHD be based on two times the average adult length of a sirenian, as measured from the tip of the muzzle to the notch in the midline of the tail in the dugong, and from the tip of the muzzle to the most distal point in the midline of the rounded tail of the manatee. There are only two genera of sirenians, both being similar in size. Therefore for the purposes of these regulations, the average adult length would be essentially the same for both species.

It is therefore proposed herein that the depth of the pool holding sirenians cannot be less than one-half the average adult length of a sirenian or 1.52 meters (5 feet), whichever is greater. There may be areas in the pool that are less than 1.52 meters (5 feet), but this should not be included when computing MHD, volume, or depth. Surface area requirements for sirenians would be the same as for cetaceans.

There were few comments in regard to the proposals of space requirements for pinnipeds. One stated that there should be a limit of 10 pinnipeds per enclosure. This is considered to be an option of management. As long as management can properly meet the space and water quality requirements and can maintain the animals in a state of good health, the Department will not propose to restrict the number of pinnipeds that may be housed in the same enclosure. Most comments received stated that a minimum depth of 1.52 meters (5 feet) was not necessary and that the depth in the pool should be less. There was another comment stating that no ramp was necessary for the pinniped to leave the pool since pinnipeds can jump or pull themselves out of the water if the resting area is close to the water's edge.

After due consideration of all comments received, it is proposed herein that the space requirements for pinnipeds remain essentially the same in this proposal, with the exception of depth and ramp requirements. It is therefore proposed that the space requirements for a primary enclosure housing pinnipeds (e.g., seals, sea lions, and walruses) should include a pool of water as well as a dry area for resting and social activities, as they spend much of their time out of the water. The space allowed for each pinniped for freedom of movement, mating, postural adjustments and sleep would be determined by its size and by the number of pinnipeds sharing the same enclosure. A pinniped appears to require a minimum dry area at least 50 percent larger than its own length squared. As more pinnipeds are added to the primary enclosure less space should be allotted per animal because of the greater amount of communal space available. It is proposed that this be accomplished by reducing the multiplier of 50 percent for the first animal by 10 percentage points for each additional animal. The effect of this would be that the space requirement starting with animal number six and every additional animal would be figured by squaring its average adult length.

In computing the minimum dry space requirements for pinnipeds, it is proposed that the average adult length of each pinniped housed in the primary enclosure shall be ascertained by measuring it from the tip of its nose to the tip of its tail in a horizontal or extended position. The measurements should then be arranged in descending order from the largest pinniped, based on its average adult length for each species represented, which would be animal number one, to the smallest pinniped at the end. The largest pinniped would be given a minimum dry space of its own length squared, plus 50 percent, or its own length squared times 1.5. The second largest pinniped would be given a minimum dry space of its own length squared, plus 40 percent, or its own length squared times 1.4. The third largest pinniped would be given a minimum dry space of its own length, plus 30 percent, or its own length squared times 1.3. This would be continued to the fifth largest pinniped which would receive a minimum dry space equal to its own length squared, plus 10 percent, or its own length squared times 1.1. For all additional pinnipeds (more than five) added to the primary enclosure, the space would be determined by allotting each such pinniped a minimum dry space equal to its own average adult length squared. The sum of such figures for each pinniped in a primary enclosure would represent the minimum dry resting and social activity area required.

A pool of water whose MHD is twice the average adult length of the longest species of pinniped contained therein appears to have sufficient surface area for two such pinnipeds. However, additional surface area would be required when more than two pinnipeds are housed in the same primary enclosure. Pinnipeds spend one-half or less of their time in the water, and, therefore, rarely would all pinnipeds in a primary enclosure be in the pool of water at one time. It is, therefore, proposed that when more than two pinnipeds are housed in the same primary enclosure, the minimum surface area of the pool must be two-thirds of the dry resting and social activity area required for such pinnipeds. For purposes of calculation, it is proposed that the minimum depth of the pool shall not be less than 0.91 meters (3 feet) or one-half the length of the longest species of pinniped contained therein, whichever is greater. This is a change from the 5 feet in the prior proposal which is deemed to be justified by the comments. Any part of the pool less than 0.91 meters (3 feet) deep would not be considered in the calculation for either the dry resting area or pool size. There were some comments stating that the proposed resting and social activity area was excessive, but the proposed space requirements were just slightly more than would be needed for the pinnipeds to turn around if all of them were out of the water. The comment regarding the proposed requirement of a ramp for entering and leaving the pool was considered valid, and, therefore, that requirement has been deleted from this proposal. There were no comments concerning the size of the pool being either too small or too large.

A few comments were also received with regard to the proposed space requirements for polar bears. One

person commented that the pool should be bigger than proposed. Another thought that the proposed den size was too large. However, most agreed with the space requirements. Therefore, it is proposed that these proposed requirements remain essentially the same. It is proposed herein that a minimum dry resting area of 37.16 square meters (400 square feet) be provided for one or two polar bears and an additional 3.72 square meters (40 square feet) for each additional polar bear contained in a primary enclosure. It is also proposed that the den shall be at least 1.83 meters (6 feet) in width and depth and 1.52 meters (5 feet) in height (which is 1 foot less than the previous proposal), which would allow sufficient space for one polar bear to make normal postural adjustments. A separate den would be required for each adult female of breeding age as a private enclosure. It is also proposed that sufficient shade, other than the den, be provided in a primary enclosure containing polar bears. It is further proposed that the pool in any primary enclosure for polar bears be a minimum of 2.44 meters (8 feet) by 3.66 meters (12 feet) and at least 1.52 meters (5 feet) deep.

Sea otters appear to need a dry resting area and a pool of water in their primary enclosures. It is necessary for sea otters to have a pool of water to keep their hair coat wet at all times for proper grooming and for insulation of the body, as they spend most of their time in the water. They cannot regulate their body temperatures properly if the hair coat is allowed to dry. These animals when wet will usually die of exposure or hypothermia if the hair coat becomes soiled or hyperthermia if the hair coat is allowed to dry. Objective data concerning the minimum space requirements for sea otters is not available to the Department at this time. Therefore, the following minimum space requirements are proposed since this Department has no information that would indicate that such proposals are not reasonable, necessary, appropriate, or adequate for sea otters. The MHD of a pool of water for sea otters shall be at least twice the average adult length of the longest sea otter contained therein, as measured from the tip of its nose to the tip of its tail. It is also proposed that the minimum depth of the pool shall not be less than 0.91 meters (3 feet). The volume of water in such a pool would appear to be sufficient for one or two sea otters. It is also proposed that the minimum dry resting area for one or two sea otters be equal to the minimum surface area of the pool required for such sea otters.

When more than two sea otters are housed in the same primary enclosure, both the dry resting area and the pool volume would have to be increased, based on the average adult length of the sea otters. The additional minimum volume of water necessary to contain more than two otters would be calculated by multiplying the surface area of the pool by 0.91 meters or 3 feet (minimum depth of pool), and dividing the result by two. The resulting answer would represent the additional minimum volume of water the pool must contain for such sea otters. The surface area of a pool containing sea otters would be calculated in the same manner as the surface area of a pool containing cetaceans, which has been previously discussed. It is further proposed that the minimum dry resting area for two sea otters, which shall be computed as specified in § 3.104(f) of this proposal, be increased by one-half the square of the average adult length of each additional sea otter times 0 (3.14), when more than two such animals are contained in an enclosure.

Several comments were received with regard to the feeding of marine mammals. Some of the comments requested that the Department specify the kind of fish to be fed to captive marine mammals, require the food be vitamin fortified, and require extensive records of individual food intake. Most of these comments deal with husbandry or curatorial matters, and the Department does not wish to interfere as these are considered management responsibilities. The Department would require that marine mammals be maintained in a state of good health and would make this the responsibility of management.

Some comments requested that the food be allowed to come to ambient temperature before freezing. It is this Department's opinion that it would be risky to allow this because bacterial contamination and decomposition would be well advanced since thawing frozen fish or other food usually takes some time, and the surface thaws considerably sooner than the deeper portions.

It has come to the attention of this Department that frozen food may be thawed up to 24 hours prior to feeding without causing adverse effects. Therefore, the 18-hour time period for thawing of food, which was originally proposed, will be changed to 24 hours in this proposal, and the time would start running when the food is removed from the freezer. The food would be allowed to warm slightly but only immediately before feeding and not for an extended period of time. This would be to assure that no ice remains in the food since there is some opinion that ice in food could cause digestive upsets in marine mammals.

The Department is also deleting the term "competent" before the word "employee" in this proposal as it is hard to define a competent employee. Management of the facility would be responsible for assuring that the animals are properly fed and it is expected that this task would be entrusted to an employee who is capable of assuming the responsibility.

There were some comments that no provision was made to allow public feeding. The Department proposes to relax this restriction and allow public feeding provided it is closely supervised. The facility would still have the responsibility of assuring that each marine mammal receives a proper diet and that no foreign bodies or nonfood objects are given to the animals either maliciously or accidentally by the participating public. Close or constant supervision would be required to be maintained at all times when there is marine mammal/public contact. This would mean that an employee would need to be physically present to exercise such supervision during the contact period. The food given to the animals would be required to be obtained from the facility housing the marine mammals.

Water quality is extremely important for marine mammals and at least minimum standards need to be maintained for the good health and well-being of the animals. Marine mammals are air breathing animals, and it is not necessary for the water to contain sufficient oxygen for respiratory functions as there is no gaseous exchanges between marine mammals and the water.

Several comments were received indicating that polar bears should have less restrictive standards for water in pools that the other marine mammals. Pools for polar bears are generally smaller than pools of other marine mammals, and they are usually drained, cleaned, and refilled with water on a routine schedule. There is usually a continual flow of new water into the pool and the overflow is discharged. There is generally no attempt to reclaim the water by filtration. For these reasons, APHIS did not originally propose that the water quality standards for polar bears be the same as for other marine mammals, but simply required that the water quality would have to be maintained in such a manner as would be necessary to keep the polar bears in a state of good health. The Marine Mammal Commission has recommended that no special exemptions be allowed for polar bear pools. Therefore, this Department, being in agreement with that recommendation, is proposing herein that polar bear pools meets the same water quality requirements as for other marine mammals.

Some comments indicated that coliform count and chemical monitoring are not necessary in pools that receive

sea water directly from bays and estuaries. This appears to be true with respect to chemical monitoring, with the exception of chemicals that are added to maintain water quality, but is not true with respect to coliform count. It is proposed that both of these should still be done routinely to assure the proper quality of water if chemicals are added. This is especially true in light of the fact that some bays and estuaries are badly contaminated with human waste and sewage; therefore, coliform counts are important to assure that the water meets the compliance which are proposed herein.

Requests were also received that minimum and maximum levels of all chemical additives be specified in the standards. This is a function of management, as the Department would allow chemicals to be added to the water to assist in maintaining proper water quality and to control excessive algae and moss. These chemical additives, regardless of which ones are used, would not be allowed to be toxic or strong enough to cause the marine mammals injury or discomfort, and chemical monitoring is the only way to determine strength and effective levels of the chemicals.

It was also pointed out in some comments that eye infections, corneal opacities, poor hair coat, or contamination of surface wounds on the animals are not necessarily a sign of poor water quality, as was indicated by the former proposal. It is true that water quality can be substandard and still not cause the marine mammals to exhibit these conditions. It is also true that certain animals can exhibit some of these conditions and still have the proper water quality. If there is an isolated animal or two with a problem, it is probably not due to the water quality, but if most, or all, or the animals have similar conditions to some degree, then water quality must be suspected and that would be the starting place when trying to diagnose the etiology of the conditions. However, the Department must agree that a general statement that any of the above conditions automatically mean that the water quality is unacceptable if not valid. This proposal has therefore deleted such statement.

There were other comments that normal sea water can contain as much as 36 parts per thousand of salt and not be harmful to marine mammals. There was also a comment by the Marine Mammal Commission that there should be no minimum level of salt since it is proposed to allow fresh water to be used if the individual marine mammal species can tolerate fresh water over an extended period of time. These comments were considered to be valid and the part of this proposal dealing with salinity has been amended accordingly.

With respect to water quality, it is further proposed herein that the purity of water in closed systems be assured by keeping the coliform bacteria count below 1,000 MPN (most probable number) per 100 ml. of water and that filtration systems be used to filter out particulate material. All marine mammals defecate in the water of their pool, and the filtration system must be able to circulate the water through the filters to keep it free from excrement as well as dirt or other debris that gains entry to the pool. It is proposed that the filtration of recirculated water, or the addition of new water, be at a rate which is sufficient to maintain proper water quality at all times. It is also proposed that when salinized water is used, it be within the range of the salinity of normal sea water not exceeding 36 parts per thousand. Further, it is proposed that the pH of the water be monitored to assure that it approximates the pH of normal sea water. Chemicals that are added to the pool to control bacteria or algae must not be so strong as to adversely affect the quality of the water to the point that it might be harmful or cause discomfort to the marine mammals.

About the only comments received that are concerned with the proposed sanitation standards were comments by several persons that algae is not harmful to marine mammals and is, in fact, beneficial in small amounts. This Department did not intend to completely prohibit algae or moss. However, any algae or moss which is present must be kept under control. Therefore, the sanitation standards which appeared in the original proposal are proposed herein without change.

These standards are necessary to assure that the facility which houses marine mammals is maintained in a clean and sanitary condition so as not to pose a health hazard to the marine mammals contained therein, or to the employees who work at the facility, or to the viewing public.

Standards regarding pest control which appears in the original proposal are also part of this proposal.

The only comments received with regard to employees were requests that the type of training requirements be clarified. The type of training, be it academic or on-the-job training, will not be specified by this Department. The responsible officials of a facility which houses and maintains marine mammals must assure that their employees have sufficient training to do the job assigned and that captive marine mammals are not caused to suffer because of improperly trained employees. What is required by the proposed regulations (both these ant the ones of August 19, 1977) is that employees taking care of the marine mammals must be under the supervision of an experienced marine mammal caretaker.

With respect to the subject of separation of animals, it is proposed that marine mammals that are not compatible shall not be housed in the same primary enclosure. In addition to the separation of imcompatible species, there should also be separation among the same species if the good health and well-being of any animal contained therein is in jeopardy. It is also proposed that marine mammals that are incompatible with other animals shall not be housed near animals that would cause them stress or discomfort or would interfere with their good health. On the advice of the Marine Mammal Commission, the Department has also added to this proposal the requirement that marine mammals be given access to other animals.

Those commenting on the proposed regulations and standards also mentioned veterinary care of marine mammals. Those comments were considered and appropriate action was taken where necessary. It was recommended that pools used for isolation or treatment, or for any reason as short-term holding pools, need not meet the lateral and depth dimensions of a permanent housing pool. This Department feels these comments are reasonable and accepts the recommendation. There were also some comments that yearly blood tests be required, but in the opinion of this Department, such activity should be a responsibility of management and the veterinary care program. The Marine Mammal Commission, in its advisory capacity, recommended that a thorough and complete necropsy be required following the death of any marine mammal in captivity. After carefully considering the recommendation, this Department has decided that such a necropsy would be useful in determining the cause of death, monitoring the health, and determining the adequacy of veterinary care of the animals. It is therefore proposed that a complete necropsy must be conducted by a veterinarian on all marine mammals that die in captivity. A necropsy report would have to be prepared by the veterinarian performing the necropsy. This report would be required to be kept by the management of the facility where the animal died for 2 years so that it could be presented to Department inspectors on request.

COMMENTS REGARDING TRANSPORTATION STANDARDS

Section 13 of the Animal Welfare Act (7 U.S.C. 2143) requires the Secretary to promulgate standards to

govern the humane handling, care, treatment, and transportation of animals by dealers, research facilities, and exhibitors. Provisions of the Animal Welfare Act Amendments of 1976 (Pub. L. 94-279), enacted on April 22, 1976, also require the Secretary of Agriculture to promulgate standards to govern the transportation in commerce, and the handling, care, and treatment in connection therewith, by intermediate handlers and carriers of animals consigned by any dealer, research facility, exhibitor, operator of an auction sale, or other person, or any department, agency, or instrumentality of the United States or of any State or local government, for transportation in commerce. The Secretary was also given authority to promulgate such rules and regulations as he determines necessary to assure humane treatment of animals in the course of their transportation in commerce, including requirements such as those with respect to containers, feed, water, rest, ventilation, temperature, and handling.

The proposed transportation standards contained herein have been written to provide marine mammals with the same general protection and care as that proposed for all other species of animals covered by the Animal Welfare Act and published in the FEDERAL REGISTER on August 19, 1977, at 42 FR 42044.

The Marine Mammal Commission and other sources of expertise in transporting marine mammals have offered suggestions which were helpful in writing the proposed standards. In drafting the proposed standards contained herein, the Department has given careful consideration to the various suggestions and recommendations. For the sake of uniformity and consistency, it has followed the same format and imposed similar regulations on common carriers and intermediate handlers that transport marine mammals as those that have been promulgated for all other warmblooded animals covered by the Animal Welfare Act.

Special provisions were being considered for marine mammals which are part of traveling shows and are not permanently housed in stationary facilities. There were numerous comments to the effect that circuses and other traveling animal acts which exhibit marine mammals were not properly covered in the original proposal. The Marine Mammal Commission, as well as members of humane groups, have recommended to the Department that no special allowances be made for these animals and the regulations and standards as proposed should apply to all marine mammals covered by the Animal Welfare Act. After a thorough consideration of these recommendations, it is the decision of this Department to propose that circuses and traveling shows meet the same requirements as other exhibitors.

Most shipments of marine mammals will be consigned to private transporting concerns that specialize in transporting marine mammals. These business concerns should have the experience and the equipment to assure the safe delivery of the marine mammals to their destinations. It appears that very few marine mammals would be transported by the normal common carrier or intermediate handler. However, the proposed transportation standards for marine mammals would apply to all dealers, exhibitors, research facilities, carriers, and intermediate handlers.

There were several comments about consignments to normal common carriers and intermediate handlers and the obligations and responsibilities of the carriers. One comment was that no marine mammal should be transported unaccompanied at any time. Some comments suggested that prior arrangements should be made requiring the consignee to meet the shipment on arrival at its destination. Suggestions were also made that a 24-hour telephone number be required on the waybill so the carriers and intermediate handlers can notify the consignee immediately on arrival anytime day or night. The original proposed standards and regulations require that the carrier must attempt to notify the consignee as soon as possible after the arrival of the animal at the final terminal, and if unable to do so, must try at least once every 6 hours. A comment was received that the 6-hour requirement should be reduced to no more than 4 hours. After carefully considering this suggestion, it is proposed to lower that requirement to 4 hours.

As was done in the original proposal, requirements for primary enclosures used in transporting the different orders of marine mammals are divided into two categories in this proposal. Pinnipeds and the marine carnivores (polar bears and sea otters) are in one category, and it is proposed that they can be shipped in crates similar to those that are used in transporting other zoo animals. It is important that these animals be given sufficient space in the primary enclosure used for transportation to assure that they have room to move or lie down in normal postural positions without impeding their appendages. The second category includes the cetaceans and sirenians, and it is proposed that they be transported in devices which are designed to support their body weight and provide easy access to the animals by employees to administer their needs in transit. Without the buoyancy of water, these marine mammals move with great difficulty. Therefore, it is proposed that cetaceans and sirenians be transported in well padded straps, slings, harnesses, or other devices for body support that are designed to protect the animal while in transit and to allow attendants to administer to their needs. The proposed standards for transporting cetaceans and sirenians take into account the need of these animals to be supported and protected from injury during transportation. There was a comment from one person that straps, slings, harnesses, etc., are not used in transporting cetaceans and sirenians, and the animals he transports are place on a foam rubber pad and no restraining devices are used whatsoever. The Department considers a foam rubber pad a form of body support. Furthermore, some devices would have to be used in getting the animals in and out of the transporting conveyance. A large cetacean, totally unrestrained, could be dangerous to itself and the conveyance if allowed to thrash about for any reason.

There were several comments that the proposed ventilation requirements of the primary enclosures used to transport marine mammals, other than cetaceans and sirenians, were not adequate. It was the opinion of those commenting that due to the body temperature regulating capacity of marine mammals, in that they have a tendency toward overheating, the proposed 8-percent ventilation on two ends of the enclosure was not sufficient. It is agreed that this is a valid consideration and, therefore, it is proposed to increase the ventilation requirements to at least 15 percent on each side of all four sides of the enclosure. This should provide adequate ventilation for the animal contained therein in both a prone and standing position.

Comments were also received regarding the proposed requirement that female marine mammals in season (estrus) shall not be transported in the same primary enclosure with any male marine mammals. It was commented that it is not easy to determine if a marine mammal is in season. It is agreed that this is difficult. Therefore, it is proposed herein that female marine mammals shall not be transported in the same primary enclosure with a sexually mature male.

Some comments also stated that the proposed size of the primary enclosure used to transport pinnipeds was too large and extensive. They stated that pinnipeds seldom, if ever, fully extend their body and flippers in all directions. It was also stated that a small primary enclosure was better since the animal would not have room to move about excessively and injure itself. It is the determination of APHIS that the larger primary enclosure is more

humane and better for heat dissipation and ventilation. It was interpreted by some who commented that contact with supporting framework or other solid structures during transportation was prohibited by the proposed regulations and standards, whereas the Department's intent was that these solid objects, if capable of causing injury, should be padded or eliminated.

A few comments were received regarding the primary conveyance used to transport marine mammals. One person thought that the proposed regulation concerning the animal cargo space and the prevention of engine exhaust fumes and gases was too restrictive. It was argued that there should be some allowances since there was no way to completely prevent any exhaust fumes from entering, especially when the doors to the cargo space are open when loading and unloading cargo. It was not intended that there would be absolutely no tolerances and that any exhaust fumes or gases were prohibited. It was intended that every precaution be taken to protect the animal cargo space from being filled with exhaust fumes and gases that could reach such concentration that would make the animals ill or even cause their death. The Department, therefore, proposes that the ingress of exhaust fumes and gases cannot exceed that ordinarily contained in the passenger or operator compartment of the primary conveyance.

A comment was also received regarding the proposed requirement of positioning animals in the primary conveyance in such a manner that in an emergency they could be removed from the conveyance in a 5-minute period. It was pointed out that certain marine mammals are extremely large and heavy and that special animal handling equipment is required to move these animals. Therefore, it is proposed herein that marine mammals be positioned in a conveyance in such a way that in emergencies they can be removed from the primary conveyance as soon as possible.

Most comments received were directed toward not feeding or watering the marine mammal during transit. Some stated that feeding or watering might result in the animal vomiting, and in certain animals, this could be very detrimental if not fatal. Another commented that feeding results in a problem of fecal contamination that can be minimized by fasting. The primary concern of the Department, however, in proposing regulations for feeding and watering while in transit is to assure that the marine mammal arrives at its destination in the best physical condition possible. It is true that denying the animal food and water while in transit is not necessarily cruel and inhumane treatment. Experts in the field of transporting marine mammals must determine what is best for the animal to assure that it does not suffer harm or injury during transportation. This is one of the reasons for proposing that an attendant accompany certain types of marine mammal shipments (shipments involving sirenians, cetaceans, and sea otters, and also shipments lasting more than 12 hours) so the condition of the animal can be closely observed.

Marine mammals are generally not fed while in transit and, in most cases, it is an accepted practice to actually fast the animals for a short period prior to shipment. The sea otter is an exception to this general rule in that it should have food available while in transit. Some comments were received indicating that sea otters should not be fed while in transit because of possible problems with sanitation inside the primary enclosure. However, on the recommendation of the Marine Mammal Commission, this Department has determined to propose that sea otters have food available while in transit.

Some comments expressed a desire that all shipments of marine mammals should be accompanied by an attendant. This was not proposed because when certain marine mammals are confined in strong, secure primary enclosures during shipments an attendent cannot monitor or service their in transit needs as he would not have access to the animal. If prolonged or extended shipping periods of more than 12 hours in transit occur, then it is proposed that all marine mammals are to be accompanied by an attendent.

Another comment presented the idea that the reason cetaceans and sirenians should have freedom of movement of the pectoral flippers is primarily for regulating the body temperature by waving or moving the flippers and not for relieving pressure on the rib cage which might interfere with the animal's breathing ability, as was claimed by the Department. This may be true to a certain extent. However, it is determined that relieving pressure on certain parts of the marine mammal's body when out of the water for an extended period of time is still the primary consideration in requiring freedom of movement of the flippers.

Therefore, in consideration of the above comments, it is proposed that an attendent be required to accompany shipments of cetaceans, sirenians, and sea otters because of the required special handling, feeding, and watering, or because of problems encountered due to their size, It is proposed that other marine mammals are to be so accompanied only during prolonged shipments. The skin of cetaceans and sirenians would be required to be kept moist in transit or protected by some substance such as lanolin to keep it from drying. It is also important that the pectoral fins of both cetaceans and sirenians have full mobility during transit. Periodic positional adjustments would have to be made when cetaceans and sirenians are transported in straps, slings, harnesses, or other body supports to prevent pressure necrosis of the skin over bony prominences or other points where extreme pressure is concentrated from the weight of the animal. It is proposed that restraining straps, securing the cetacean or sirenian to the sling, harness, or other device, shall be tight enough to restrain the marine mammal, but not so tight that they become irritating to the animal. Struggling and thrashing about would have to be minimized to prevent overheating of the marine mammal.

Sea otters must keep their hair coat wet for proper insulation and temperture control of their body. They will not groom their fur if it dries or becomes soiled with feces. It is therefore proposed that at least on-half of a primary enclosure used to transport sea otters shall be leakproof and contain sufficient crushed ice or water to provide the sea otter contained therin with moisture necessary to allow each sea otter to keep its hair coat wet. The ice or water would also serve to prevent feces and urine from contaminating the hair coat. it is also proposed that a dry area be available in the primary enclosure used to transport a sea otter so the animal can get out of the ice and water for resting or grooming purposes.

With regard to terminal facilities, the only comments received questioned the necessity of providing protection from the snow and cold weather in the case of arctic or ice dwelling marine mammals. These were considered valid and this proposal provides exceptions for ice dwelling marine mammals. There were no comments that objected to providing shelter from sunlight.

It is proposed that the indoor animal holding area be provided with fresh air either by means of windows, doors, vents, or air conditioning and be ventilated so as to minimize drafts, odors, and moisture condensation. The ambient or air temperature would not be allowed to fall below 7.2° C (45° F) except in certain cases, and would not be alowed to exceed 29.5° C (85° F) at any time. This is the temperature range which is being required for the transporation of all other animals under the Animal Welfare Act. Proposing different temperature ranges for marine mammals would impose an unfair hardship on terminal facilities since it might necessitate different

holding areas for marine mammals. The indoor animal holding area would be required to be cleaned and sanitized in the manner prescribed in § 3.107 of the standards often enough to prevent an accumulation of debris or excreta, to minimize vermin infestation, and to prevent disease hazards.

It is further proposed herein that carriers and intermediate handlers, in transporting live marine mammals from the indoor animal holding area of the terminal facility to the primary conveyance and from the primary conveyance to the indoor animal holding area of the terminal facility, including loading and unloading procedures, must provide shelter from sunlight when sunlight is likely to cause overheating or discomfort. It is also proposed that the terminal facility provide shelter from snow. Transporting devices would be required to be covered to provide protection for live marine mammals during snow. The terminal facility would also be required to provide the marine mammal with shelter from cold weather. Transporting devices would have to be covered to provide protection for live marine mammals when the atmospheric or outdoor temperature falls below 10° C (50° F) unless the marine mammal is an ice dwelling animal and can safely tolerate lower temperatures.

There were no comments received with regard to handling marine mammals at terminal facilities. The Department proposes that carriers and intermediate handlers should be responsible for moving live marine mammals from the indoor animal holding area of the terminal facility to the primary conveyance and from the primary conveyance to the indoor animal holding area of the terminal facility as expeditiously as possible. This proposal also contains a provision stating that care shall be exercised to avoid handling of the primary enclosure in a manner which may cause physical or emotional trauma to the live marine mammal contained therein. There is also a provision which states that primary enclosures housing live marine mammals shall not be tossed, dropped, or needlessly tilted and shall not be stacked in a manner which may result in their falling.

It is possible to encounter a wide variation of temperature ranges during transportation, and the ambient temperature extremes need to be controlled in order to prevent discomfort to the marine mammal and to protect the health and well-being of the animal. Marine mammals are generally more affected by hot temperatures than they are by cool or cold temperatures.

One comment received was that the proposed temperature of 35° C (95° F) within primary enclosures was too warm for marine mammals and that the allowable temperature should not exceed 29.4° C (85° F). Considering the problem of body temperature regulations and heat dissipation, due to the subcutaneous blubber layer of most marine mammals, is it proposed that the temperature around the marine mammal within the primary enclosure during transportation shall not exceed 29.4° C (85° F) for a period of more than 45 minutes nor fall below 7.2° C (45° F) for a period of more than 45 minutes unless the person transporting the marine mammal knows that is is acclimated to such higher or lower temperatures.

A detailed explanation of the proposed regulations and standards dealing with marine mammals also accompanied the original proposal of August 19, 1977. Anyone desiring additional information regarding this proposal should refer to that proposal, which appeared in Vol. 42, No. 161, of the FEDERAL REGISTER on Friday, August 19, 1977.

PART 1—DEFINITION OF TERMS

Accordingly, it is proposed that the regulations and standards (9 CFR 1.1 et seq.) be amended as follows:

1. It is proposed that the second sentence in § 1.1(n) of the regulations (9 CFR 1.1(n)) be amended to delete the words "aquatic animals," following the word "birds" and before the word "rats".

2. It is proposed that § 1.1(gg) of the regulations (9 CFR 1.1(gg)) be amended by inserting a comma after the word "compartment" and adding the word "pool" immediately thereafter and before the word "or".

3. It is proposed that a new definition for minimum horizontal dimension (MHD) be added to the end of § 1.1 of the regulations (9 CFR 1.1) to read as follows:

§ 1.1 Definition.

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(qq) "Minimum horizontal dimensions" (MHD) means the diameter of a circular pool of water, or in the case of a square, rectangular, oblong or other shape pool, the diameter of the largest circle that can be inserted within the confines of such a pool of water.

PART 3—STANDARDS

4. It is proposed that the Table of Contents in Part 3—Standards of Title 9, Code of Federal Regulations, be amended by making present Subpart E of the Table of Contents, Subpart F, and renumbering §§ 3.11 to 3.114 thereof to §§ 3.125 through 3.138, respectively, and by adding a new Subpart E as follows:

Subpart E—Specifications for the Humane Handling, Care, Treatment, and Transportation of Marine Mammals.

FACILITIES AND OPERATING STANDARDS

Sec.
3.100 Special considerations regarding compliance.
3.101 Facilities, general.
3.102 Facilities, indoor.
3.103 Facilities, outdoor.
3.104 Space requirements.

ANIMAL HEALTH AND HUSBANDRY STANDARDS

3.105 Feeding.
3.106 Water quality.
3.107 Sanitation.
3.108 Employees.
3.109 Separation.
3.110 Veterinary care.
3.111 Handling.

TRANSPORTATION STANDARDS

3.112 Consignments to carriers and intermediate handlers.
3.113 Primary enclosures used to transport marine mammals.
3.114 Primary conveyances (motor vehicle, rail, air, and marine).
3.115 Food and water requirements.
3.116 Care in transit.
3.117 Terminal facilities.
3.118 Handling.
3.119 Ambient temperature within primary enclosures.

5. It is proposed that present Subpart E of Part 3—Standards (9 CFR Part 3, Subpart E) would be redesignated as Subpart F and §§ 3.100 to 3.114 thereof would be renumbered as §§ 3.125 through 3.138, respectively, and a new Subpart E would be added to read as follows:

Subpart E—Specifications for the Humane Handling, Care, Treatment, and Transportation of Marine Mammals

FACILITIES AND OPERATING STANDARDS

§ 3.100 Special considerations regarding compliance.

(a) All persons subject to the Animal Welfare Act who maintain marine mammals in captivity must comply with the provisions of this subpart, unless they are granted permission by the Secretary to deviate from one or more of the provisions. The provisions of this subpart shall not apply, however, in emergency circumstances where compliance with one or more provisions would not serve the best interest of the marine mammals concerned.

(b) From the effective date of the regulations and standards of this subpart, all facilities housing marine mammals which are not in full compliance with the standards shall have 60 days during which they may apply to the Secretary for written permission to operate as a licensee or registrant under the Act: Provided, however, That:

(1) Application is made to the Secretary, in writing, listing in detail all

areas of deviation from the requirements of this subpart, the time period requested for each deviation, and the justification for such request.

(2) The Secretary shall deny any such application if he determines that allowing it would be detrimental to the health and well-being of the marine mammals concerned.

(3) Such permission to deviate from the provisions of this subpart shall not be granted for a period exceeding 4 years from the effective date of these provisions.

(c) Any person desiring to deviate from the requirements of this subpart for the purpose of experimentation in the areas of husbandry and care of marine mammals may apply to the Secretary for written permission to do so: Provided, however, That:

(1) Application is made to the Secretary, in writing, listing in detail all areas of deviation from the requirements of this subpart, the time period requested for each deviation, and the justification for such request.

(2) The Secretary shall deny any such application if he determines that allowing it will be detrimental to the health and well-being of the marine mammals concerned.

§ 3.101 Facilities, general.

(a) *Construction requirements.* (1) Housing facilities for marine mammals shall be structurally sound and shall be maintained in good repair, to protect the animal from injury, to contain the animals, and to restrict the entrance of unwanted animals.

(2) All marine mammals shall be provided with protection from abuse and harassment by the viewing public by the use of a sufficient number of employees to supervise the viewing public, or by physical barriers, such as fences, walls, glass partitions, or distance, or both.

(3) Any primary enclosure pool, including ramps for entering or leaving the pool, shall be constructed of materials having a nonporous, waterproof finish, which shall facilitate proper cleaning and disinfection, and which shall be maintained in good repair as part of a regular ongoing maintenance program.

(4) Facilities which utilize natural areas such as tidal basins, bays, or estuaries for housing marine mammals shall be exempt from the waterproof finish, nonporous surface construction, and drainage requirements of paragraphs (a)(3) and (c)(1) of this section, but they must meet the minimum standards with regard to space, depth, and sanitation. Water quality must be monitored as in other facilities.

(b) *Water and power supply.* Reliable and adequate sources of water and electric power shall be provided by the facility housing marine mammals. Written contingency plans must be submitted to and approved by Veterinary Services regarding emergency sources of water and electric power in the event of failure of the primary sources, if such failure could be detrimental to the good health and well-being of the marine mammals housed therein.

(c) *Drainage.* (1) Adequate drainage shall be provided for all primary enclosure pools and shall be located so as to rapidly eliminate all of the water contained in such pools when necessary for cleaning the pools or for other purposes. Drainage effluent from primary enclosure pools shall be disposed of in a manner that complies with all applicable Federal, State, and local pollution control laws.

(2) Drainage shall be provided for primary enclosures and areas immediately surrounding pools. Drains shall be located so as to rapidly eliminate excess water (except in pools). Such drainage effluent shall be disposed of in a manner that complies with all applicable Federal, State, and local pollution control laws.

(d) *Storage.* Supplies of food shall be stored in facilities which adequately protect such supplies from deterioration, molding, or contamination by vermin. Refrigerators and freezers shall be used for perishable food. No substances which are known to be or may be toxic or harmful to marine mammals shall be stored or maintained in the marine mammal food storage or food preparation areas.

(e) *Waste disposal.* Provision shall be made for the removal and disposal of animal and food wastes, dead animals, trash, and debris. Disposal facilities shall be so provided and operated as to minimize vermin infestation, odors, and disease hazards. All waste disposal procedures must comply with all applicable Federal, State, and local laws pertaining to pollution control, protection of the environment, and public health.

(f) *Washroom facilities.* Facilities such as washrooms, basins, showers, or sinks, shall be provided to maintain cleanliness among the marine mammal caretakers.

§ 3.102 Facilities, indoor.

(a) *Ambient temperature.* The air and water temperatures in indoor facilities shall be sufficiently regulated by heating or cooling to protect the marine mammals from extremes of temperature, to provide for their good health and well-being and to prevent discomfort, in accordance with the currently accepted practices as cited in appropriate professional journals or reference guides, depending upon the species housed therein. Rapid changes in air and water temperatures shall be avoided.

(b) *Ventilation.* Indoor housing facilities shall be ventilated by natural or artificial means to provide a flow of fresh air for the marine mammals and to minimize the accumulation of chlorine fumes, harmful gases, or other objectionable odors. A vertical air space averaging at least 1.83 meters (6 feet) shall be maintained in all primary enclosures housing marine mammals, including over their pools of water.

(c) *Lighting.* Indoor housing facilities for marine mammals shall have ample lighting, by natural or artificial means, or both, of a quality, distribution, and duration which is optimum for the species involved. Such lighting shall provide uniformly distributed illumination of sufficient light intensity to permit routine inspections, and to permit adequate observation and cleaning of all parts of the primary enclosure including any den areas. Lighting of primary enclosures shall be designed so as to prevent overexposure of the marine mammals contained therein to excessive illumination.

§ 3.103 Facilities, outdoor.

(a) *Environmental temperatures.* Marine mammals shall not be housed in outdoor facilities unless the air and water temperature ranges which they may encounter during the period they are so housed do not adversely affect their health and comfort. A marine mammal shall not be introduced to an outdoor housing facility until it is acclimated to the air and water temperature ranges which it will encounter therein. The surface of the water in pools in outdoor primary enclosures shall be kept sufficiently free of solid ice when housing polar bears and ice dwelling species of pinnipeds so as to allow entry and exit of the animals. Water in pools in outdoor primary enclosures shall be kept free of ice when housing cetaceans and sea otters. No sirenian or warm water dwelling pinnipeds shall be housed in outdoor pools where water temperature cannot be maintained within the temperature range to meet their needs.

(b) *Shelter.* Natural or artificial shelter which is appropriate to the local climatic conditions for the species concerned, shall be provided for all marine mammals kept outdoors to afford them protection and to prevent discomfort to such animals due to weather conditions or to direct sunlight.

§ 3.104 Space requirements.

(a) *General.* Primary enclosures, including pools of water housing marine mammals, shall be constructed and maintained so as to provide sufficient space, both horizontally and vertically, and so as to allow each marine

mammal contained therein, to make normal postural and social adjustments with adequate freedom of movement, in or out of the water.

(b) *Cetaceans.* Primary enclosures housing cetaceans shall contain a pool of water and may consist entirely of a pool of water. In computing the minimum space requirements in a pool holding cetaceans, four factors must be considered. These are the MHD, the depth, the volume, and the surface area. For the purposes of this subpart, cetaceans have been divided into the following groups:

Group I cetaceans. This group shall consist of all cetaceans except those specified in Group II below.

Group II cetaceans. This group shall consist of the following genera and species of cetaceans.

Genera, Species and Common Name

Delphinus—all species— common dolphin.
Lissodelphis—all species—right whale dolphin.
Stenella—plagiodon—spotted dolphin.
Stenells—attenuata—spotted porpoise.
Stenella—coeruleoalba—blue-white porpoise (striped dolphin).
Stenella—Longirostris—spinner porpoise.
Phocoenoides—dalli—Dall's porpoise.

(1) *The required minimum horizontal dimension (MHD)* of a primary enclosure pool shall be based on the average adult body length of the longest species of cetacean housed therein. (i) The MHD of a pool for Group I cetaceans shall be two times the body length of an average adult of the longest species of cetacean to be housed therein, measured from the tip of its lower jaw to the notch in the tail fluke.[3] (ii) The MHD of a pool for Group II cetaceans shall be four times the body length of an average adult of the longest species of cetacean to be housed therein as measured from the tip of the lower jaw to the notch in the tail fluke. (iii) In a pool where a mixture of both group I and group II cetaceans are to be housed, the MHD must be computed on the basis of both the average adult length of the longest species of group I cetacean and of the longest species of group II cetacean, and the required MHD shall be either two times the body length of an average adult of the longest species of group I cetacean to be housed therein or four times the body length of an average adult of the longest species of group II cetacean to be housed therein, whichever is greater. (iv) The pool size may also be required to be adjusted to assure there is adequate surface area available to all cetaceans housed in a pool, and to increase the volume when more cetaceans are added to a pool. The pool size can be increased to allow for more surface area or volume, but cannot be less than the MHD requirement as stated in subparagraph (1), (ii), and (iii) of this paragraph. Examples of MHD for group I cetaceans are shown in table I, and for group II cetaceans in table II.

(2) *The minimum depth requirements* for primary enclosure pools for all cetaceans shall be one-half the body length of the average adult of the longest species to be housed therein, regardless of the group I or group II classification, or 1.52 meters (5 feet), whichever is the greater, and can be expressed as d=L/2 or 5 feet, whichever is greater.

(3) *Pool volume.* A pool of water housing cetaceans which satisfies the MHD for either group I or group II cetaceans and which meets the minimum depth requirements, and surface area requirements discussed in paragraph (b)(4) of this section, shall have a sufficient volume of water to hold either two group I cetaceans or four group II cetaceans. If additional cetaceans of the same group are to be added to a pool, or in case the pool is to hold a mixture of group I and II cetaceans, the volume, as well as the surface area, necessary for each cetacean (if mixed), or for each additional group I or II cetacean (if not mixed), must be satisfied. The additional volume needed shall be based on the number and kind of cetaceans housed therein and shall be determined in the following manner. (i) The minimum volume of water (space) required for the first one or two group I cetaceans is based upon the formula:

Volume=(2 × average adult length of the longest species of cetacean/2)² × 0 × depth

(½ body length or 5 feet, whichever is greater, or $V=L^2 \times 0 \times d$. Volume divided by two would equal the volume required for each additional cetacean of group I. The volume requirements for each additional group I cetacean, more than two, are given in Table I. (ii) The minimum volume of water (space) required to maintain as many as four group II cetaceans is based upon the following formula:

Volume=(4 × average adult length of the longest species of cetacean/2)² × 0 × depth

(½ body length or 5 feet, whichever is greater), or $V=2L^2 \times 0 \times d$. Volume divided by four would be the volume required for each additional group II cetacean. The volume requirements for each additional group II cetacean. The volume requirements for each additional group II cetacean are given in Table II. (iii) When a mixture of both group I and group II cetaceans are housed together, the MHD must be satisfied as stated in § 3.103(b)(1), and the minimum depth cannot be less than required in § 3.103(b)(2). If additional volume is required when more cetaceans are added, this may be done by enlarging the pool in its lateral dimensions or by increasing the depth to allow for the increased volume of water, but the surface area requirements discussed below must also be met.

(4) *The minimum surface area* requirements are computed for each cetacean housed in the pool, regardless of group I or group II classification, based upon the following formula:

Surface area=(average adult body length/2)² × 0 × 1.5, or SA=L/2 × 0 × 1.5.

Surface area requirements are given in table III.

[3] The body length of a *Monodon monoceros* (narwhal) is measured from the tip of the upper incisor tooth to the notch in the tail fluke. If the upper incisor is absent or does not extend beyond the front of the head, then it is measured like other cetaceans, from the tip of the lower jaw to the notch in the tail fluke. Immature males should be anticipated to develop the "tusk" (usually left incisor tooth) beginning at sexual maturity.

TABLE I*.—*Group I Cetaceans*

Average adult length		MHD		Minimum required depth		Volume of water required for each additional cetacean, exceeding two—	
Meters	Feet	Meters	Feet	Meters	Feet	Cubic meters	Cubic feet
1.83	6	3.66	12	1.52	5	8.00	282.60
2.13	7	4.27	14	1.52	5	10.89	384.65
2.44	8	4.88	16	1.52	5	14.22	502.40
2.74	9	5.49	18	1.52	5	17.99	635.85
3.05	10	6.10	20	1.52	5	22.22	785.00
3.66	12	7.32	24	1.83	6	38.39	1,356.48
4.27	14	8.53	28	2.13	7	60.96	2,154.04
4.88	16	9.75	32	2.44	8	90.99	3,215.36
5.49	18	10.97	36	2.75	9	129.56	4,578.12
6.10	20	12.19	40	3.05	10	177.72	6,280.00
6.71	22	13.41	44	3.36	11	236.55	8,358.68
7.32	24	14.63	48	3.66	12	307.11	10,851.84
7.92	26	15.85	52	3.96	13	390.46	13,797.16
8.53	28	17.07	56	4.27	14	487.67	17,232.30

*All calculations are rounded off to the nearest hundredth. In converting the length of cetaceans from feet to meters, 1 foot shall equal .3048 meter. Due to rounding of meter figures as to the length of the cetacean, the correlation of meters to feet in subsequent calculations of MHD and additional volume of water required per cetacean, over two, may vary slightly from a strict feet to meters ratio. Cubic meters is based on: 1 cubic foot = 0.0283 cubic meter.

TABLE II*.—*Group II Cetaceans*

Average adult length		MHD		Minimum required depth		Volume of water required for each additional cetacean, exceeding four—	
Meters	Feet	Meters	Feet	Meters	Feet	Cubic meters	Cubic feet
1.52	5	6.10	20	1.52	5	11.11	392.50
1.83	6	7.32	24	1.52	5	16.00	565.20
2.13	7	8.53	28	1.52	5	21.77	769.30
2.44	8	9.75	32	1.52	5	28.44	1,004.80
2.74	9	10.97	36	1.52	5	35.99	1,271.70
3.05	10	12.19	40	1.52	5	44.43	1,570.00

*Converting cubic feet to cubic meters is based on: 1 cubic foot = 0.0283 of a cubic meter.

TABLE III.—*Minimum Surface Area Required for Each Cetacean*

Average adult length of each cetacean		Surface area required for each cetacean		Average adult length of each cetacean		Surface area required for each cetacean	
Meters	Feet	Square meters*	Square feet	Meters	Feet	Square meters*	Square feet
1.52	5	2.73	29.44	4.27	14	21.44	230.79
1.83	6	3.94	42.39	4.88	16	28.00	301.44
2.13	7	5.36	57.70	5.49	18	35.44	381.51
2.44	8	7.00	75.36	6.10	20	43.76	471.00
2.74	9	8.86	95.38	6.71	22	52.94	569.91
3.05	10	10.94	117.75	7.32	24	63.01	678.24
3.35	11	13.24	142.48	7.92	26	73.95	796.00
3.66	12	15.75	169.56	8.53	28	85.76	923.16

*Square meter = square feet/9 × 0.8361.

(c) *Sirenians.* Primary enclosures housing sirenians shall contain a pool of water and may consist entirely of a pool of water. The minimum pool size requirements, for MHD, depth, and volume shall be calculated by using the same formulas as used for group I Cetaceans (table I) and surface area in table III, in paragraph (b) of this section, based on the average adult length of such sirenians as measured from the tip of the muzzle to the notch in the tail fluke of dugongs and from the tip of the muzzle to the most distal point in the rounded tail of the manatee. This size pool shall be adequate for one or two sirenians.

(d) *Pinnipeds.* (1) Primary enclosures housing pinnipeds shall contain a pool of water and a dry resting or social activity area that must be close enough to the surface of the water to allow easy access for entering or leaving the pool. (2) The minimum size of the dry resting or social activity area of the primary enclosure for pinnipeds (exclusive of the pool of water) shall be based on the average adult length of each pinniped contained therein, as measured in a horizontal or extended position in a straight line from the tip of its nose to the tip of its tail. The minimum size of the dry resting and social activity area shall be computed using the following method:

List all pinnipeds contained in a primary enclosure by average adult length in descending order from the longest species of pinniped to the shortest species of pinniped. Square the average adult length of each pinniped. Multiply the average adult length squared of the longest pinniped by 1.5, the second longest by 1.4, the third longest by 1.3, the fourth longest by 1.2, and the fifth longest by 1.1, as indicated below. Square the average adult length of the sixth pinniped and all additional pinnipeds. Add the figures obtained for all the pinnipeds in the primary enclosure to determine the required minimum dry resting and social activity area required for such pinnipeds.

1st pinniped (average adult length)^2 × 1.5 = resting and social activity area required.

2nd pinniped (average adult length)^2 × 1.4 = resting and social activity area required.

3rd pinniped (average adult length)^2 × 1.3 = resting and social activity area required.

4th pinniped (average adult length)^2 × 1.2 = resting and social activity area required.

5th pinniped (average adult length)^2 × 1.1 = resting and social activity area required.

Over 5 (average adult length)^2 × 1.0 = resting and social activity area required for each additional animal.

Total minimum dry resting and social activity area for all pinnipeds housed in a primary enclosure.

(3) The minimum surface area of a pool of water for pinnipeds shall be at least two-thirds of the total minimum dry resting and social activity area required for the pinnipeds contained therein. The pool of water shall be at least 0.91 meters (3 feet) deep or one-half the length of the longest pinniped contained therein, whichever is greater. Parts of the pool less than 0.91 meters (3 feet) deep cannot be used in the calculation of either the resting and social activity area or as part of the pool.

(e) *Polar bears.* Primary enclosures housing polar bears shall consist of a pool of water, a dry resting and social activity area, and a den. A minimum of 37.16 square meters (400 square feet) of dry resting and social activity area shall be provided for one or two polar bears, with an additional 3.72 square meters (40 square feet) of dry resting

and social activity area for each additional polar bear. The dry resting and social activity area shall be provided with enough shade to accommodate all of the polar bears contained in such primary enclosure at the same time. The pool of water shall be at least 2.44 meters (8 feet) by 3.66 meters (12 feet) with a minimum depth of 1.52 meters (5 feet), with the exception of any entry and exit area. This size pool shall be adequate for two polar bears. For each additional bear, the surface area of the pool must be increased by 3.72 square meters (40 square feet). The den shall be at least 1.83 meters (6 feet) in width and depth and not less than 1.52 meters (5 feet) in height. It will be so positioned that the viewing public shall not be visible from the interior of the den. A separate den shall be provided for each adult female of breeding age in the same primary enclosure.

(f) *Sea otters.* (1) Primary enclosures for sea otters shall consist of a pool of water and a dry resting area. The MHD of the pool of water for sea otters shall be at least twice the length of the average adult sea otter contained therein as measured from the tip of its nose to the tip of its tail and the pool shall be not less than 0.91 meters (3 feet) deep. When more than two sea otters are housed in the same primary enclosure, additional dry resting area as well as pool volume is required to accommodate the additional sea otters (table IV).

(2) The minimum volume of water required for a primary enclosure pool for sea otters shall be based on the average adult length of each sea otter contained therein, as measured from the tip of its nose to the tip of its tail. The minimum volume of water required in the pool shall be computed using the following method. Multiply the square of the length of the average adult sea otter by 0 (3.14) and multiply the total by 0.91 meters (3 feet). This volume is satisfactory for one or two sea otters. For more than two sea otters, multiply one-half of the square of the length of the third average adult sea otter, and each additional sea otter (when more than two), by 0 (3.14), then multiply by 0.91 meters (3 feet).

(3) The minimum dry resting area required for one or two sea otters shall be based on the average adult length of each sea otter contained therein, as measured from the tip of its nose to the tip of its tail. The minimum dry resting area for one or two sea otters shall be computed using the following method. Square the length of the average adult sea otter and multiply the total by 0 (3.14). When the enclosure is to contain three sea otters, the additional dry resting area for the third animal shall be computed as follows. Multiply one-half of the square of the average adult length of the third sea otter by 0 (3.14). If more than three sea otters are to be kept in a primary enclosure, obtain the sum of one-half of the square of the average adult length of each additional sea otter (starting with otter number 3), and multiply this sum by 0 (3.14). Additional dry resting and social activities area is given in table IV.

TABLE IV *.—*Additional Space Required for Each Sea Otter More Than Two in a Primary Enclosure*

Length of sea otter		Resting area		Pool volume	
Meters	Feet	Square meters	Square feet	Cubic meters	Cubic feet
0.91	3.0	1.30	14.13	1.18	42.39
1.07	3.5	1.80	19.23	1.64	57.70
1.22	4.0	2.34	25.12	2.13	75.36
1.37	4.5	2.95	31.79	2.68	95.38
1.52	5.0	3.63	39.25	3.30	117.75
1.68	5.5	4.43	47.49	4.03	142.48

* All calculations are rounded off to the nearest hundredth. A conversion factor of 1 foot equals .3048 meter is used in converting the length of the sea otter from feet to meters. Due to rounding of meter figures as to the length of the sea otter, the correlation of meters to feet in subsequent calculations of additional resting area and pool volume required per sea otter, more than two, may vary slightly from a strict feet to meter ratio.

ANIMAL HEALTH AND HUSBANDRY STANDARDS

§ 3.105 Feeding.

(a) The food for marine mammals shall be wholesome, palatable, and free from contamination, and shall be of sufficent quantity and nutritive value to maintain all of the marine mammals in a state of good health. The diet shall be prepared with consideration for age, species, condition, size, and type of marine mammal being fed. Marine mammals shall be offered food at least once a day, except as directed by veterinary treatment or professionally accepted practices.

(b) Food receptacles, if used, shall be located so as to be accessible to all marine mammals in the same primary enclosure and shall be placed so as to minimize contamination of the food contained therein. Such food receptacles shall be cleaned and sanitized after each use.

(c) Food, when given to each marine mammal individually, shall be given by an employee responsible to management who has the necessary knowledge to assure that each marine mammal receives an adequate quantity of food to maintain it in good health. Such employee is required to have the ability to recognize deviations from a normal state of good health in each marine mammal so that the food intake can be adjusted accordingly. Public feeding shall be only permitted if it is done in the presence and under the supervision of an employee. Such employee must assure that the marine mammals are receiving the proper amount and type of food. Only food supplied by the facilities where the marine mammals are kept shall be fed to such mammals by the public.

(d) Food preparation and handling shall be conducted so as to minimize bacterial or chemical contamination and to assure the wholesomeness and nutritive value of the food. Frozen fish or other frozen food shall be stored in freezers which are maintained at a maximum temperature of −15° C (5° F). Thawing of the frozen food shall

be conducted in a manner which will minimize contamination and which will assure that the food retains nutritive value and wholesome quality. The thawed product shall be kept iced or refrigerated until a reasonable time before feeding. All foods shall be fed to the marine mammals within 24 hours following the removal of such foods from the freezers for thawing.

§ 3.106 Water Quality.

(a) *General.* The primary enclosure shall not contain water which would be detrimental to the health of the marine mammal contained therein.

(b) *Bacterial standards.* (1) The coliform bacteria count of the primary enclosure pool shall not exceed 1,000 MPN (most probable number) per 100 ml. of water. Should a coliform bacterial count exceed 1,000 MPN, two subsequent samples may be taken at 48-hour intervals and average with the first sample. If such average count does not fall below 1,000 MPN, then the water in the pool shall be deemed unsatisfactory.

(2) When the water is chemically treated, the chemicals shall be added so as not to cause harm or discomfort to the marine mammals.

(3) Water samples shall be taken and tested at least weekly for coliform count and at least daily for pH and any chemical additives (e.g. chlorine and copper) that are added to the water to maintain water quality standards. Records must be kept concerning when all such samples were taken and the results of the tests. Records of all such test results shall be kept for a 1-year period and must be made available for inspection purposes on request.

(c) *Salinity.* Primary enclosure pools of water shall be salinized for marine cetaceans and harp seals as well as for those other marine mammals which require salinized water for their good health and well-being. The salinity of the water in such pools shall be maintained within a range of 15-36 parts per thousand.

(d) *Filtration and water flow.* Water quality must be maintained by filtration, chemical treatment, or other means so as to comply with the water quality standards specified in this section.

§ 3.107 Sanitation.

(a) *Primary enclosures.* (1) Animal and food waste in areas other than the pool of water shall be removed from the primary enclosure at least daily, and more often when necessary to prevent contamination of the marine mammals contained therein and to minimize disease hazards.

(2) Particulate animal and food waste, trash, or debris that enter the primary enclosure pool of water shall be removed as often as necessary to maintain the required water quality and to prevent health hazards to the marine mammals contained therein.

(3) The wall and bottom surfaces of the primary enclosure pool of water shall be cleaned as often as necessary to maintain proper water quality.

(b) *Food preparation areas and food receptacles.* Containers, such as buckets, tubs, and tanks, as well as utensils, such as knives and cutting boards, or any other equipment which has been used for holding, thawing or preparing food for marine mammals shall be cleaned and sanitized after each feeding, if the marine mammals are fed once a day, and at least daily if the marine mammals are fed more than once a day. Kitchens and other food handling and preparation areas shall be cleaned at least once daily and sanitized at least once every week. Sanitizing shall be accomplished by washing with hot water (82° C, 180° F, or higher) and soap or detergent in a mechanical dishwasher, or by washing all soiled surfaces with a detergent solution followed by a safe and effective disinfectant, or by cleaning all soiled surfaces with live steam.

(c) *Housekeeping.* Buildings and grounds, as well as exhibit areas, shall be kept clean and in good repair. Fences shall be maintained in good repair. Primary enclosures housing marine mammals shall not have any loose objects, sharp projections, and/or edges which may cause injury or trauma to the marine mammals contained therein.

(d) *Pest control.* A safe and effective program for the control of insects, ectoparasites, and avian and mammalian pests shall be established and maintained. Insecticides or other such chemical agents shall not be applied in a primary enclosure housing marine mammals except when deemed essential by an attending veterinarian.

§ 3.108 Employees.

A sufficient number of adequately trained employees shall be utilized to maintain the prescribed level of husbandry practices set forth in this subpart. Such practices shall be under the supervision of a marine mammal caretaker who has a background in marine mammal husbandry or care. Training of marine mammals shall be done by experienced trainers without physical punishment or abuse being used or inflicted upon the marine mammals.

§ 3.109 Separation.

Marine mammals which are not compatible shall not be housed in the same enclosure. Marine mammals shall not be housed near animals that would cause them stress or discomfort, or interfere with their good health. Captive marine mammals must be given access to other animals except when they are maintained in isolation for such purposes as medical treatment or training and given special attention.

§ 3.110 Veterinary Care.

(a) Programs of disease prevention, parasite control, euthanasia, and adequate veterinary care for all marine mammals shall be established and maintained under the supervision of an attending veterinarian.

(b) Marine mammals shall be observed daily by the person in charge of the care of the marine mammals or by someone working under his direct supervision. Sick or diseased, stressed, injured, or lame marine mammals shall be provided with adequate veterinary care or humanely destroyed, when necessary, unless such action is inconsistent with the research purposes for which the marine mammal was obtained and is being held.

(c)(1) In the case of a research facility, the program of adequate veterinary care shall include the appropriate use of anesthetic, analgesic, or tranquilizing drugs, when such use would be proper in the opinion of the attending veterinarian of the research facility. The use of these three classes of drugs shall be in accordance with currently accepted veterinary medical practice as cited in appropriate professional journals or reference guides which shall produce in the individual subject animal as high a level of tranquilization, anesthesia, or analgesia as is consistent with the protocol or design of the experiment.

(2) It shall be incumbent upon each research facility through its Animal Care Committee and attending veterinarian to provide guidelines and consultation to research personnel with respect to the type and amount of tranquilizers, anesthetics, or analgesics recommended as being appropriate for each species of marine mammals used by that institution.

(d) Newly acquired marine mammals shall be isolated from resident marine mammals until such newly acquired marine mammals can be reasonably determined to be in good health. Any communicable disease condition in a newly acquired marine mammal must be remedied before it is placed with other resident marine mammals.

(e) Any primary enclosure containing a marine mammal with an infectious or contagious disease shall be cleaned and sanitized in the manner prescribed by the attending veterinarian. No additional animals shall be introduced into the primary enclosure prior to such cleaning and sanitizing procedures. Any marine mammal exposed to a diseased animal shall be isolated for observation for an appropriate period of time as determined by the attending veterinarian.

(f) Temporary holding facilities with adequately and properly designed pools, tanks, restraining devices or primary enclosures shall be provided for isolation, medication, and treatment of marine mammals. The pools, tanks and primary enclosures may be less than minimum size in both lateral dimensions and depth when used in special situations when prescribed by the professional staff for temporary usage.

(g) A complete necropsy must be conducted by a veterinarian on all marine mammals that die in captivity. A necropsy report must be prepared by the veterinarian listing all pathologic lesions observed and giving the apparent cause of death. All diagnostic tests conducted on post mortem specimens shall be listed in the report, and the results of each test recorded. The management of the facility, at which the marine mammal died, must maintain these necropsy records for a period of 2 years and present them to the Department inspectors when requested.

§ 3.111 Handling.

(a) Handling marine mammals shall be done as expeditiously and carefully as possible in a manner that does not cause unnecessary discomfort, overheating, behavioral stress, or physical harm. Care should also be exercised to avoid harm to the handlers of such marine mammals.

(b) Marine mammals, to which the public is afforded direct contact, shall only be displayed for periods of time and under conditions consistent with the animals' good health and well-being. A responsible attendant must be present at all times during periods of public contact.

(c) During public display, all marine mammals must be handled so that there is minimal risk of harm to the public or to the marine mammal, with sufficient distance allowed, or barriers placed between the marine mammal and the viewing public to assure safety to both the public and the marine mammal. Performing marine mammals shall be allowed a rest period between performances at least equal to the time for one performance.

TRANSPORTATION STANDARDS

§ 3.112 Consignments to carriers and intermediate handlers.

(a) Carriers and intermediate handlers shall not accept any marine mammal presented by any person or by any department, agency, or instrumentality of the United States or of any State or local government for transportation, in commerce, more than 4 hours prior to the scheduled departure of the primary conveyance on which it is to be transported.

(b) Carriers and intermediate handlers shall attempt to notify the consignee immediately on arrival, and if unsuccessful, at least once every 4 hours following the arrival of any marine mammal at the animal holding area of the terminal cargo facility. The time, date, and method of notification to the consignee and the person notifying the consignee shall be noted on one of the documents accompanying the marine mammal.

§ 3.113 Primary enclosures used to transport marine mammals.

(a) Primary enclosures, which are used to transport marine mammals other than cetaceans and sirenians, shall (1) be constructed from materials of sufficient structural strength to contain the marine mammals; (2) be constructed from material that is durable, nontoxic, and cannot be chewed, and/or swallowed; (3) be able to withstand the normal rigors of transportation; (4) have interiors which are free from any protrusions that could be injurious to the marine mammals contained therein; (5) be constructed so that no parts of the contained marine mammals shall be exposed to the outside of the enclosures in such a way which may cause injury to the animals or to persons who are nearby or who handle the enclosures; (6) have openings which provide access into the enclosures which shall be secured with locking devices of a type which cannot be accidentally opened; (7) have such openings located in a manner which makes them easily accessible at all times for emergency removal of any live marine mammal contained therein; (8) have air inlets at heights which will provide cross ventilation at all levels (particularly when the marine mammals are in a prone position) and located on all four sides of the enclosures, and such ventilation openings shall be not less than 15 percent of the total surface area of each side of the enclosures; (9) have projecting rims or other devices placed on the ends and sides of any enclosures which have ventilation openings to provide a minimum air circulation space of 1.9 centimeters (0.75 inches) between the enclosures and any adjacent cargo or conveyance wall; and (10) be equipped with adequate handholds or other devices on the exterior of the enclosures which shall enable them to be lifted without unnecessary tilting and which will insure that the persons handling the enclosures will not come in contact with any marine mammal contained therein.

(b) Straps, slings, harnesses, or other devices, if used for body support or restraint, when transporting marine mammals such as cetaceans and sirenians shall (1) be designed so as not to prevent access to such mammals by attendants during transportation for the purpose of administering in transit care; (2) be equipped with special padding to prevent trauma or injury at critical weight pressure points on the body of the marine mammals; and (3) be capable of keeping the animals from thrashing about and causing injury to themselves or their attendants, and yet be adequately designed so as not to cause injury to the animals.

(c) Primary enclosures used to transport live marine mammals shall be large enough to assure that (1) in the case of polar bears and sea otters, there is sufficient space to turn about freely in a stance whereby all four feet are on the floor and the animal can sit in an upright position and lie in a natural position; (2) in the case of pinnipeds, each animal has sufficient space to lie in a natural position; and (3) in the case of cetaceans and sirenians, each animal has sufficient space for support of its body in slings, harnesses, or other supporting devices, if used (as prescribed in paragraph (b) of this section) without causing injury to such cetaceans or sirenians due to contact with the primary enclosure.

(d) Marine mammals transported in the same primary enclosure shall be of the same species and maintained in compatible groups. Marine mammals which have not reached puberty shall not be transported in the same primary enclosure with adult marine mammals other than their dams. Female marine mammals shall not be transported in the same primary enclosure with any mature male marine mammals.

(e) Before being used to transport marine mammals, primary enclosures, if previously used, shall be cleaned and sanitized in the manner prescribed for food preparation areas and food receptacles in § 3.107(b) of these standards.

(f) Primary enclosures used to transport marine mammals shall be clearly marked on the top and on one or more sides with the words "Wild Animal" in letters not less than 2.5 cm. (1 inch) in height, and with arrows or other markings, to indicate the correct upright position of the container.

(g) Documents accompanying the shipment shall be attached in an easily accessible manner to the outside of a primary enclosure which is part of such shipment.

§ 3.114 Primary conveyances (motor vehicle, rail, air and marine).

(a) The animal cargo space of primary conveyances used in transporting live marine mammals shall be constructed in a manner which will protect the health and assure the safety and comfort of the marine mammals contained therein at all times.

(b) The animal cargo space shall be constructed and maintained in a manner which will prevent the ingress of engine exhaust fumes and gases in excess of that ordinarily contained in the passenger compartments.

(c) No marine mammal shall be placed in an animal cargo space that does not have a supply of air sufficient for normal breathing for each live animal contained therein, and the primary enclosures shall be positioned in the animal cargo spaces of primary conveyances in such a manner that each marine mammal contained therein shall have access to sufficient air for normal breathing.

(d) Primary enclosures shall be positioned in primary conveyances in such a manner that in an emergency the live marine mammals can be removed from the conveyances as soon as possible.

(e) The interiors of animal cargo spaces in primary conveyances shall be kept clean.

(f) Live marine mammals shall not knowingly be transported with any material, substance or device which may be injurious to the health and well-being of such marine mammals unless proper precaution is taken to prevent such injury.

§ 3.115 Food and water requirements.

(a) Those marine mammals which require drinking water shall be offered potable water within 4 hours prior to being transported in commerce or offered for transportation in commerce. Such marine mammals shall be watered as often as necessary and appropriate to the species involved to prevent excessive dehydration which would jeopardize the good health and well-being of the animals.

(b) Marine mammals shall not be transported for more than a period of 36 hours without being offered food. When an attendant is required to accompany a shipment of marine mammals, as provided in § 3.115 of these standards, such marine mammals shall be fed during transit when necessary to provide for their good health and well-being.

§ 3.116 Care in transit.

(a) An attendant or employee of the shipper or receiver of any marine mammal being transported, in commerce, knowledgeable in the area of marine mammal care, shall accompany cetaceans, sirenians, and sea otters during periods of transportation to provide for their good health and well-being, to observe such marine mammals and to determine whether they need veterinary care and to obtain any needed veterinary care as soon as possible. No cetacean or sirenian in need of veterinary care shall be transported in commerce, unless such transportation is for the purpose of obtaining such care.

(b) An attendant or other employee of the shipper or receiver of cetaceans or sirenians being transported, in commerce, shall provide for such cetaceans and sirenians during periods of transport by (1) keeping the skin moist with intermittent spraying of water or protecting it by applying a nontoxic emollient, such as lanolin, to prevent drying of the skin; (2) assuring that the pecoral flippers shall be allowed freedom of movement at all times; (3) making adjustments in the position of such marine mammals at 30-minute intervals to prevent necrosis of the skin at weight pressure points; and (4) calming such marine mammals to avoid struggling, thrashing, and other unnecessary activity which may cause overheating or physical trauma.

(c) One-half of the area in a primary enclosure used to transport sea otters shall be a dry area for resting and grooming, and the other half shall be a leakproof portion which shall contain sufficient crushed ice or water to provide each sea otter contained therein with moisture necessary to allow each sea otter to maintain its hair coat by preventing it from drying and to minimize soiling of the hair coat with urine and fecal material. No sea otter in need of veterinary care shall be transported in commerce, unless such transportation is for the purpose of obtaining such care.

(d) Polar bears and pinnipeds need not be accompanied by an attendant or other employee of the shipper or receiver, unless the period of transportation will exceed 12 hours in duration. During surface transportation, it shall be the responsibility of the carrier to inspect polar bears and pinnipeds unaccompanied by an attendant at least every 2 hours to determine whether they need veterinary care and to provide any needed veterinary care as soon as possible. When transported by air, live polar bears and pinnipeds, unaccompanied by an attendant, shall be inspected by the carrier at least every 2 hours if the animal cargo space is accessible during flight. If the animal cargo space is not accessible during flight, the air carrier shall inspect such live unattended pinnipeds and polar bears whenever loaded and unloaded and whenever the animal cargo space is otherwise accessible to determine whether such unattended live animals need veterinary care, and the carrier shall provide any needed veterinary care as soon as possible. No polar bear or pinniped in need of veterinary care shall be transported in commerce, unless such transportation is for the purpose of obtaining such care.

(e) During the course of transportation, in commerce, live marine mammals shall not be removed from their primary enclosure unless it is necessary to place them into another primary enclosure or other facility, or unless an emergency situation arises making removal of marine mammals from the primary enclosure necessary.

§ 3.117 Terminal facilities.

(a) *Indoor facilities.* Carriers and intermediate handlers shall not commingle live animal shipments with inanimate cargo. All live animal shipments shall be maintained in the same animal holding area of a terminal facility of any carrier or intermediate handler at any one time. All animal holding areas shall be cleaned and sanitized often enough to prevent an accumulation of debris or excreta, to minimize vermin infestation, and to prevent a disease hazard. An effective program for the control of insects, ectoparasites, and avian and mammalian pests shall be established and maintained for all animal holding areas. Any animal holding area containing live marine mammals shall be provided with fresh air by means of windows, doors, vents, or air conditioning and shall be ventilated or have its air circulated by means of fans, blowers, or an air conditioning system in a manner that will minimize drafts, odors, and moisture condensation. The ambient temperature around any marine mammal shall not be allowed to exceed 29.5° C (85° F) at any time, nor to fall below 7.2° C (45° F), unless the marine mammal is an ice dwelling species and can tolerate temperatures below the stated minimum.

(b) *Outdoor facilities.* Carriers and intermediate handlers, in transporting, loading, and unloading, live marine mammals from indoor animal holding areas of terminal facilities to pri- mary conveyances and from primary conveyances to indoor animal holding areas of terminal facilities, shall provide the following:

(1) *Shelter from sunlight.* When sunlight is likely to cause overheating or discomfort, sufficient shade shall be provided to protect the marine mammals from the direct rays of the sun.

(2) *Shelter from snow.* Transporting devices shall be covered to provide protection for the marine mammals during snow, except to ice dwelling marine mammals which can tolerate cold weather conditions.

(3) *Shelter from cold weather.* Transporting devices shall be covered to provide protection for the marine mammals when the atmospheric or outdoor temperature falls below 10° C (50° F) unless the marine mammal is an ice dwelling species and can tolerate temperatures below the stated minimum.

§ 3.118 Handling.

(a) Carriers and intermediate handlers are responsible for moving live marine mammals from indoor animal holding areas of terminal facilities to primary conveyances and from primary conveyances to indoor animal holding areas of terminal facilities as expeditiously as possible.

(b) Care shall be exercised to avoid handling primary enclosures in a manner that may cause injury or stress to live marine mammals contained therein.

(c) Primary enclosures housing live marine mammals shall not be tossed, dropped, or needlessly tilted and shall not be stacked in a manner which may result in their falling.

§ 3.119 Ambient temperature within primary enclosures.

The ambient temperature or the temperature surrounding the animal within the primary enclosure used to transport live marine mammals shall not exceed 29.5° C (85° F) for a period of more than 45 minutes and shall not fall below 7.2° C (45° F) for a period of more than 45 minutes unless the person transporting such live marine mammals knows that such live marine mammals are acclimated to lower or higher temperatures.

All written submissions made pursuant to this notice will be made available for public inspection at the Federal Building, 6505 Belcrest Road, Room 703, Hyattsville, Md., during regular hours of business (8 a.m. to 4:30 p.m., Monday through Friday, except holidays) in a manner convenient to the public business (7 CFR 1.27(b)).

Comments submitted should bear a reference to the date and page number of this issue in the FEDERAL REGISTER.

Done at Washington, D.C., this 14th day of September 1978.

NOTE.—The Department has determined that this document does not contain a major requirement preparation of an economic impact statement under Executive Order 11821 and OMB Circular A-107. However, an economic impact statement has been drafted and a copy of said draft statement may be obtained by writing to the Deputy Administrator, USDA, APHIS, VS, Room 703, Federal Building, 6505 Belcrest Road, Hyattsville, Md. 20782.

PIERRE A. CHALOUX,
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Veterinary Services.

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